UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,613	10/14/2003	Chuan-Wei Liu	VIAP0089USA	2612

27765 7590 05/02/2006

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER	
BECK, ALEXANDER S	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/605,613	LIU ET AL.	
	Examiner	Art Unit	
	Alexander S. Beck	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 October 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to because the specification repeatedly refers to plural "columns" of an identity table, each column corresponding to an identity of a host; whereas the drawings illustrate plural rows of the identity table, each row corresponding to the identity of the host.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Amro et al.* (U.S. Patent No. 6,664,949, hereinafter AMRO) in view of *Kitao et al.* (U.S. Patent No. 6,160,491, hereinafter KITAO).

As to **Claims 1,3 and 4**, AMRO teaches/suggests electronic system in **FIGS. 1** comprising:

an input apparatus (**102**) comprising: a control circuit for controlling the input apparatus; an input interface for receiving an input information to generate a control signal, and for receiving an identity selected from a plurality of predetermined identities as a transmitting identity; a storage device for storing an identity table and an identity, the identity table

comprising a plurality of predetermined identities (inherently suggested for storing identities); and a first radio module for transmitting a radio packet, the packet comprising the transmitting identity and the control signal (AMRO: column 4, lines 49-58; column 5, lines 1-9); and

a plurality of hosts (**104**,**106**,**108**,**110**), each host corresponding to a different host identity, each host comprising: a second radio module for accepting and outputting the control signal if the packet received from the input apparatus has a corresponding host identity, and discarding the packet if the received packet has no corresponding host identity; and a processing module electrically connected to the second radio module for receiving the control signal outputted by the second radio module for controlling operations of the host (AMRO: column 4, lines 49-58; column 5, lines 1-9).

AMRO does not disclose expressly wherein the identity table is stored in a non-volatile way or wherein each host comprises at least a processing module capable of controlling the second radio module of the host to transmit a control packet to the input apparatus during a registration mode, wherein the control circuit of the host updates the contents of the identity table in the input apparatus according to the control packet

KITAO, analogous in art with AMRO, teaches/suggests an electronic system in **FIGS. 5-7**, comprising: an input apparatus (**4**,**5**) comprising: a storage device (**111**) for storing an identity table and an identity in a non-volatile way; and a plurality of hosts, each host comprising: a second radio module; wherein at least a processing module of a host is capable of controlling the second radio of the host to transmit a control packet to the input apparatus during a registration mode, wherein the control circuit of the host updates the contents of the identity

table in the input apparatus according to the control packet (KITAO: column 3, lines 27-33; column 10, lines 22-41).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the electronic system of AMRO such that the identity table was stored in a non-volatile way and the control circuit of the host updated the contents of the identity table in the input apparatus according to a control packet transmitted from the host to the input apparatus, as taught/suggested by KITAO.

The suggestion/motivation for doing so would have been so that various types of electronic devices can be controlled by a compact common remote controller (KITAO: column 3, lines 27-33) and the identity table information stored would be retained even when power is removed.

As to **Claim 2**, AMRO teaches/suggests wherein one of the hosts is chosen from the group consisting of the following: a personal computer, a mobile phone, and a personal digital assistant (PDA) (AMRO: column 2, lines 35-39)

As to **Claim 5**, AMRO teaches/suggests wherein the input apparatus is a keyboard having a plurality of keys (AMRO: column 2, lines 39-41), and the input interface will generate different control signals when different keys are depressed (inherently suggested so as to differentiate between the plurality of keys on the keyboard).

As to **Claim 10**, KITAO further teaches/suggests wherein when a host transmits the control packet comprising an identity code corresponding to the host, the control circuit will add the identity code corresponding to the host in the identity table as a predetermined identity code for updating the identity table (KITAO: column 3, lines 27-33; column 10, lines 22-41).

5. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Amro et al.* (U.S. Patent No. 6,664,949) in view of *Kitao et al.* (U.S. Patent No. 6,160,491) as applied to Claims 1-5 and 10 above, and further in view of *Mizoguchi et al.* (U.S. Publication No. 2002/0089816, hereinafter MIZOGUCHI).

As to **Claims 6-9**, note the above discussion of AMRO and KITAO.

AMRO does not disclose expressly wherein the host is capable of transmitting a "service request packet", the input apparatus outputting a "service notice packet" when receiving the "service request packet", and the host outputting a "noticing signal" when receiving the service notice packet.

MIZOGUCHI, analogous in art with both AMRO and KITAO, teaches/suggests an input apparatus that is a keyboard and communicates wirelessly with a host computer according to the Bluetooth™ standard (MIZOGUCHI: page 5, paragraphs [0092-0095]).

The Bluetooth™ standard was made available to the public prior to the effective date of instant application (see press release from Bluetooth SIG dated October 15, 2001) and it is well known in the art that when two devices are communicating according to the Bluetooth™ standard: a Bluetooth™ enabled inquiring device (e.g., computer) tries to find other nearby devices during an Inquiry Procedure by actively sending inquiry requests (e.g., service request packet); Bluetooth™ enabled nearby devices (e.g., keyboard) that are available to be found are

known as discoverable devices and listen for these inquiry requests and send responses (e.g., service notice packet) back to the inquiring device; and a paging device (e.g., computer) sends communication requests (e.g., noticing signal) during a subsequent Paging Procedure while a connectable device (e.g., keyboard) listens for these connection requests (see Bluetooth webpage discussion on Communication Topology).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the teachings of AMRO and KITAO such that the keyboard input apparatus communicated wirelessly with the plurality of hosts according to the Bluetooth™ standard, as taught/suggested by MIZOGUCHI.

The suggestion/motivation for doing so would have been to allow at least two devices to communicate automatically when within a reasonable range of one another (e.g., Bluetooth wireless communication).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shiga et al. (U.S. Patent No. 6,522,283) discloses a wireless keyboard that updates a stored identity table.

Huang et al. (U.S. Patent No. 6,659,665) discloses a wireless keyboard that communicates with computer and PDA according to the Bluetooth™ standard.

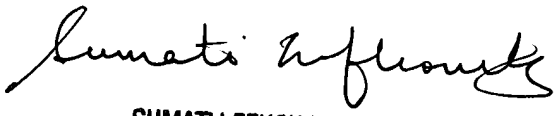
Drestie et al. (U.S. Publication No. 2003/0103088) discloses an input apparatus that receives control packets to update a stored identity table.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Alexander S. Beck** whose telephone number is **(571) 272-7765**. The examiner can normally be reached on M-F, 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Sumati Lefkowitz** can be reached on **(571) 272-3638**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

asb
4/21/06



SUMATI LEFKOWITZ
SUPERVISORY PATENT EXAMINER